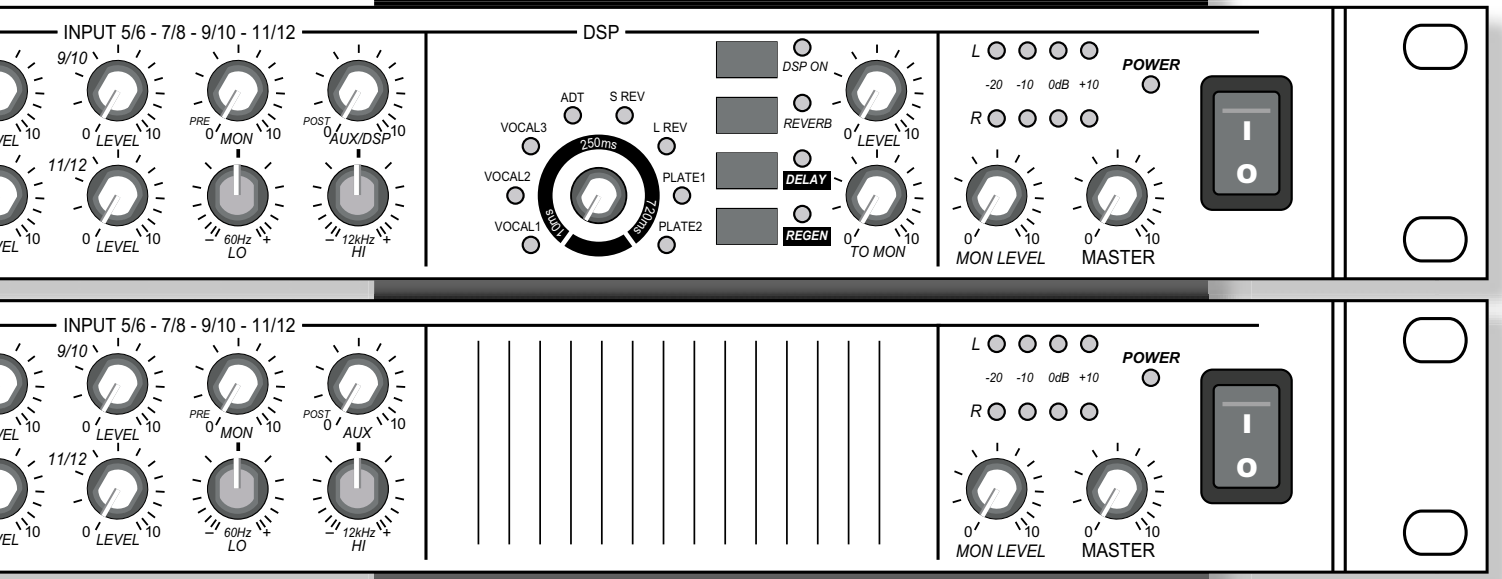
Studiomaster

by RSD



C3X C3

USER GUIDE

C3X C3

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INTRODUCTION

Thank you for buying this Studiomaster product.
The C3 and C3X are compact, extremely versatile 12 input audio mixers designed specifically for the requirements of live sound.

They feature ultra quiet mic preamps, renowned Studiomaster EQ and ease of use, all housed in a stylish slim line rack mountable package.

The C3X also features Studiomaster's custom designed DSP providing ultra clean reverbs and delay effects to enhance the vocal performance.

READ THE USER GUIDE

Despite the sophisticated design the C3 and C3X are very easy to use although to get the best from your new purchase, we recommend you read this User Guide before getting down to any serious work.
It also contains important safety information as well as practical hints.

UNPACKING

Remove your Studiomaster product from its packaging and ensure that along with this User Guide you have an A.C. power cord / mains lead and a warranty card.
Retain the packing carton in the eventuality that the unit needs to be returned for service or repair, and please complete and return your warranty card. Returning the completed warranty card does not diminish your statutory rights in any way.

SAFETY INSTRUCTIONS

READ THIS BEFORE YOU USE YOUR PRODUCT

1. Before connecting the A.C. power cord make sure the Voltage selector (located on the side of the unit) is set to your local supply voltage. For supplies between 220 and 240V use the 230V position. For supplies between 110 and 120V use the 115V position.

2. Only use the A.C. power cord / mains lead supplied with the product. Replace if it becomes damaged in any way.

3. Never operate without, or remove the safety ground (earth) from the A.C. power cord / mains lead.

4. Do not attempt to remove any screws or panels. There are no user serviceable parts inside.

5. Do not operate the unit next to heat sources such as radiators.

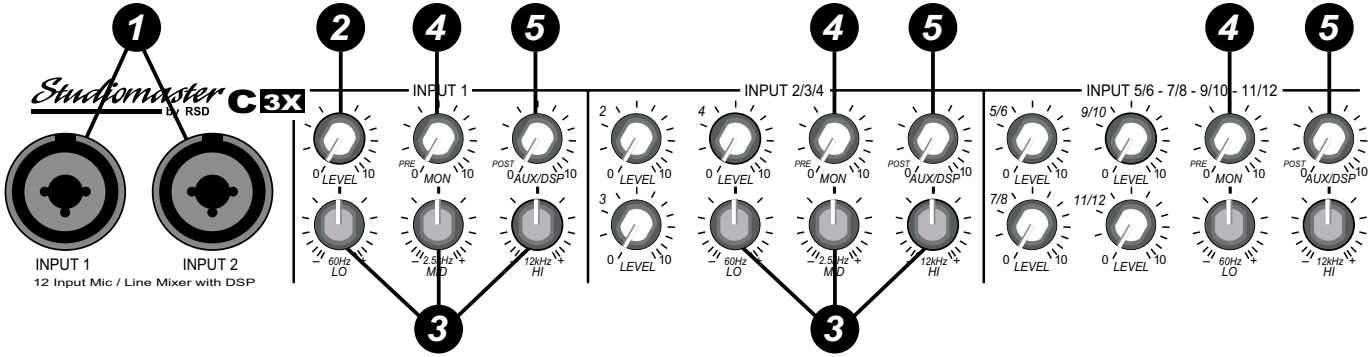
6. The unit should not be operated or stored near rain or moisture.

7. This equipment must not be exposed to dripping or splashing and no objects filled with liquids should be placed on top of it.

8. Write the serial number in the box provided in the Warranty section for future reference.

9. If the unit gets damaged, has been dropped or appears to have developed a fault refer to the Service Information section for details.

WARNING
THIS APPARATUS MUST BE EARTHED (GROUNDED)



Controls & Features - Front Panel

1. Input 1&2 : Combination XLR and Jack sockets suitable for use with balanced low impedance microphones or line level signals such as CD, keyboards, radio mics, or mini disc players. 17V phantom power is available for suitable condenser microphones via a switch located on the rear panel.

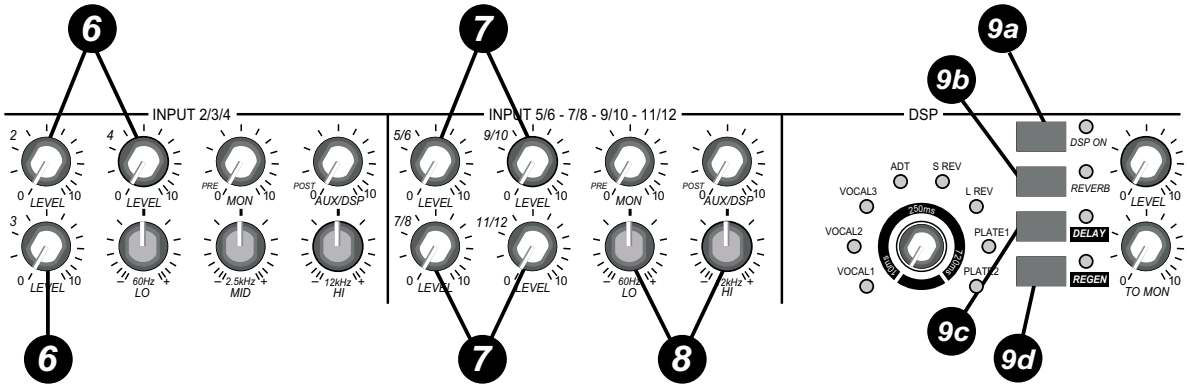
2. Input 1 level : Controls the volume level from Input 1.

3. Input 1, 2/3/4 EQ (tone control) section :
LO : 15dB of cut & boost at 60Hz
MID : 12dB of cut & boost at 2.5kHz
HI : 15dB of cut & boost at 12kHz

4. MON :
Adjusts the signal level feeding the MON (monitor) output. This is useful for creating a separate mix of sound for on stage monitoring or headphone amplifiers. Adjustment of the input level control will not affect the signal going to the MON output, as this signal is derived before (pre) the input level control.

5a. AUX (C3 only) :
Adjusts the signal level feeding the AUX (auxiliary) output. This is useful for creating a separate mix of sound to feed external effects processors such as reverb or delay units. The signal to the control is derived after (post) the input level, so any adjustment will affect the mix going to the AUX output.

5b. AUX/DSP (C3X only) :
Adjusts the signal level feeding the AUX (auxiliary) output and the internal DSP (digital signal processor) section. This is useful for creating a separate mix of sound to feed the DSP or external effects units. The signal to the control is derived after (post) the input level so any adjustment will affect the mix going to the AUX output.



6. Input level controls 2, 3 & 4 :
Controls the volume level from their respective inputs located on the rear panel. These inputs share MON, AUX and EQ controls.

7. Stereo Input level controls 5/6, 7/8, 9/10 & 11/12 :
Controls the volume level from their respective inputs located on the rear panel.

8. Stereo Input EQ (tone control) section :
LO : 15dB of cut & boost at 60Hz
HI : 15dB of cut & boost at 12kHz

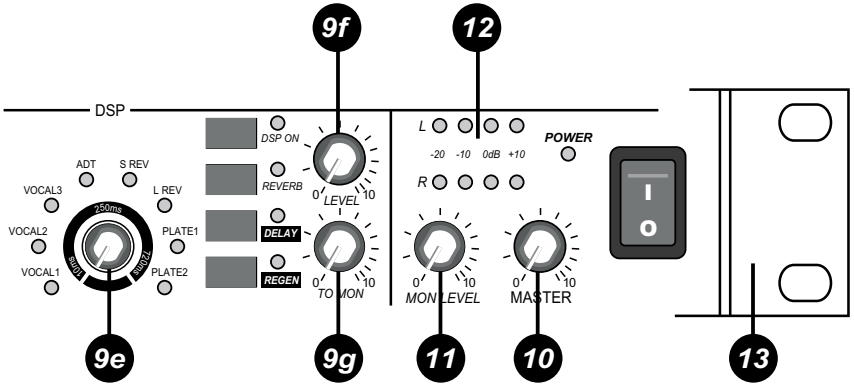
9. DSP (digital signal processor) section (C3X only) :

a) On/Off switch :
Turns on or off the output from the DSP. The LED illuminates when on. This function can also be controlled by a foot switch - see rear panel section for details.

b) REVERB switch :
This sets the DSP to reverb mode and illuminates the adjacent LED. Use the rotary encoder to select the effect required. One of the 8 LEDs surrounding the encoder shows the selection made.

c) DELAY switch :
This sets the DSP to delay mode and illuminates the adjacent LED. The encoder is now used to increase or decrease the delay or repeat time between 10mS and 720mS. This is displayed by the LEDs surrounding the encoder.

d) REGEN switch :
If selected when in DELAY mode this effect adds a percentage of the output back to the input signal and can be increased or decreased depending on the position of the encoder. In this mode the LEDs surrounding the encoder now display the amount of regen applied.
NOTE : To return to DELAY mode, REGEN must be turned off.



e) Rotary Encoder :
Used to select the program required in REVERB or DELAY modes.

f) DSP LEVEL :
Adjusts the level of the effect from the DSP to the MASTER output.

g) DSP TO MON :
Adjusts the level of the effect from the DSP to the MON output. This is useful for adding reverb or delay effects to the stage monitor or headphone mix.

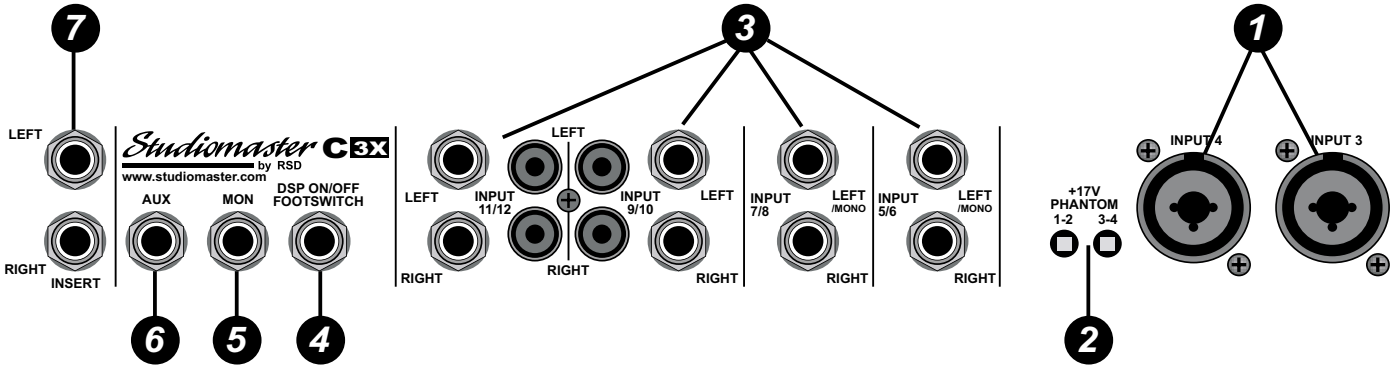
Note : The last selection made in reverb and delay mode will be remembered next time the unit is turned on.

10. MASTER level :
This controls the output volume to the external amplifier and / or recorder.

11. MON LEVEL :
This adjusts the volume sent to the MON output.

12. Bargraphs :
Left and right 4 segment LED display showing the output signal level.

13. Rack mounting brackets :
The unit is supplied ready for installation into a standard 19" rack. For free standing use, remove the 3 philips screws on each bracket. Retain the brackets and screws for future use.



Controls & Features - Rear Panel

1. Input 3&4 : Combination XLR and Jack sockets suitable for use with balanced low impedance microphones or line level signals such as CD, keyboards, radio mics, or mini disc players. 17V phantom power is available for suitable condenser microphones via the adjacent switch.

2. +17V Phantom Power Switches :
For use with suitable condensor microphones. Most modern condensor microphones have a working voltage range of 9 to 50V. However, if in doubt check with the microphone manufacturer.

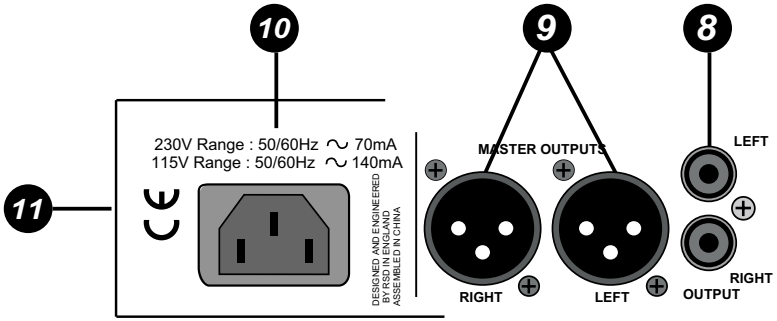
3. Stereo Inputs 5/6, 7/8, 9/10 & 11/12 :
1/4" Jack sockets for use with balanced or unbalanced line level signals. If a mono signal is used, connect to the left input which will automatically feed the signal into both the left and right inputs. Inputs 9/10 and 11/12 have additional RCA 'phono' input connectors suitable for unbalanced signals.

4. DSP ON/OFF Footswitch (C3X only) :
TS 1/4" Jack socket for the connection of an external footswitch (not supplied). The DSP section can be turned on and off by the footswitch. A latching on/off type footswitch should be used.

5. MON output :
TRS 1/4" balanced compatible output. Use 3 pole TRS or 2 pole TS jack plugs.

6. AUX output :
TRS 1/4" balanced compatible output. Use 3 pole TRS or 2 pole TS jack plugs.

7. INSERT :
TRS 1/4" jack socket send and return. Ideal for connecting



external processors like graphic equalisers in the main left and right signal prior to the MASTER volume control.

8. LEFT and RIGHT RCA phono outputs :
Unbalanced signal suitable for HI-FI amplifiers and recorders.

9. LEFT and RIGHT balanced XLR outputs :
Balanced signal suitable for professional amplifiers and sound systems.

10. AC Power Input.

11. Voltage Selector (located on the side panel) :
Do not adjust this switch when the A.C. power cord / mains lead is connected. For supplies between 220 and 240V use the 230V position. For supplies between 110 and 120V use the 115V position.

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DSP EFFECTS LIST

DIGITAL SIGNAL PROCESSOR

Reverb Mode

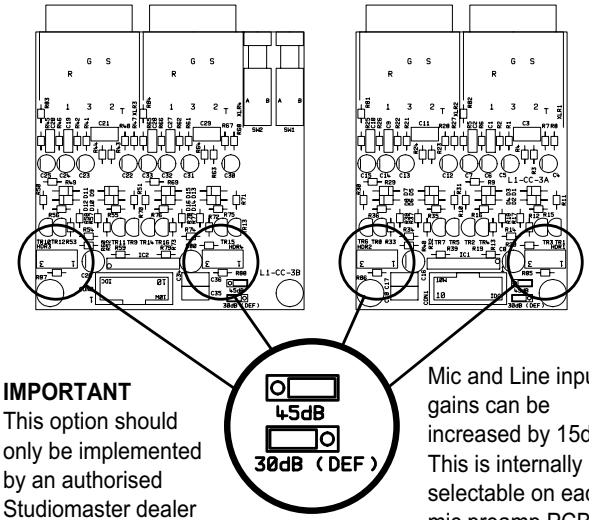
VOCAL1	Reverb with medium delay
VOCAL2	Reverb with short delay
VOCAL3	Reverb with long delay
ADT	25mS delay with ambient reverb
S REV	Small room reverb
L REV	Large hall reverb
PLATE1	Short plate reverb
PLATE2	Medium plate reverb

Delay Mode
Variable between 10mS to 720mS

Regen
Variable between 10% to 90%

INPUT GAIN OPTION

SERVICE CENTRES ONLY



IMPORTANT
This option should only be implemented by an authorised Studiomaster dealer or service centre.

Mic and Line input gains can be increased by 15dB. This is internally selectable on each mic preamp PCB by moving the relevant jumper plug as shown above.

TROUBLE SHOOTING

WHY IS IT NOT WORKING!

No Power On Led.....
Check A.C. power cord/mains lead is connected to wall supply and switched on.

UK only - Check fuse in mains plug.

Check A.C. power cord/mains lead is fully pushed into the rear panel socket

Check the unit is switched on, and blue power on LED is illiuminated.

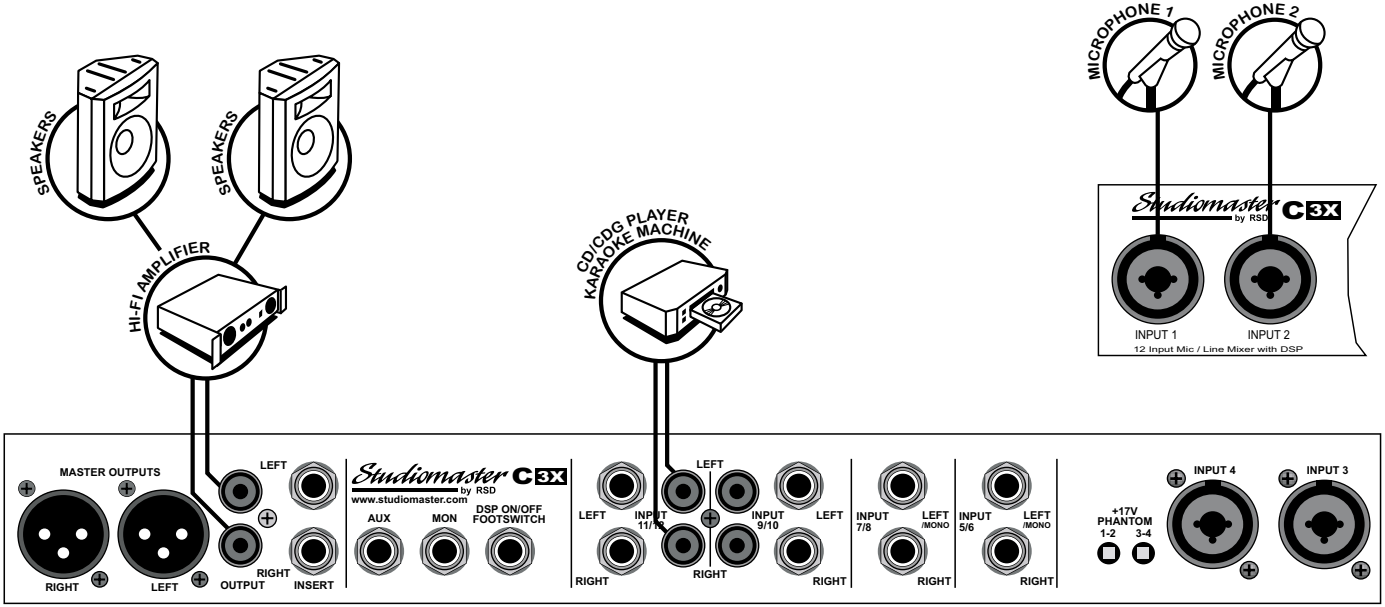
No sound.....
Check for a signal on the meters.

Check the amplifier and speaker system is connected and switched on.

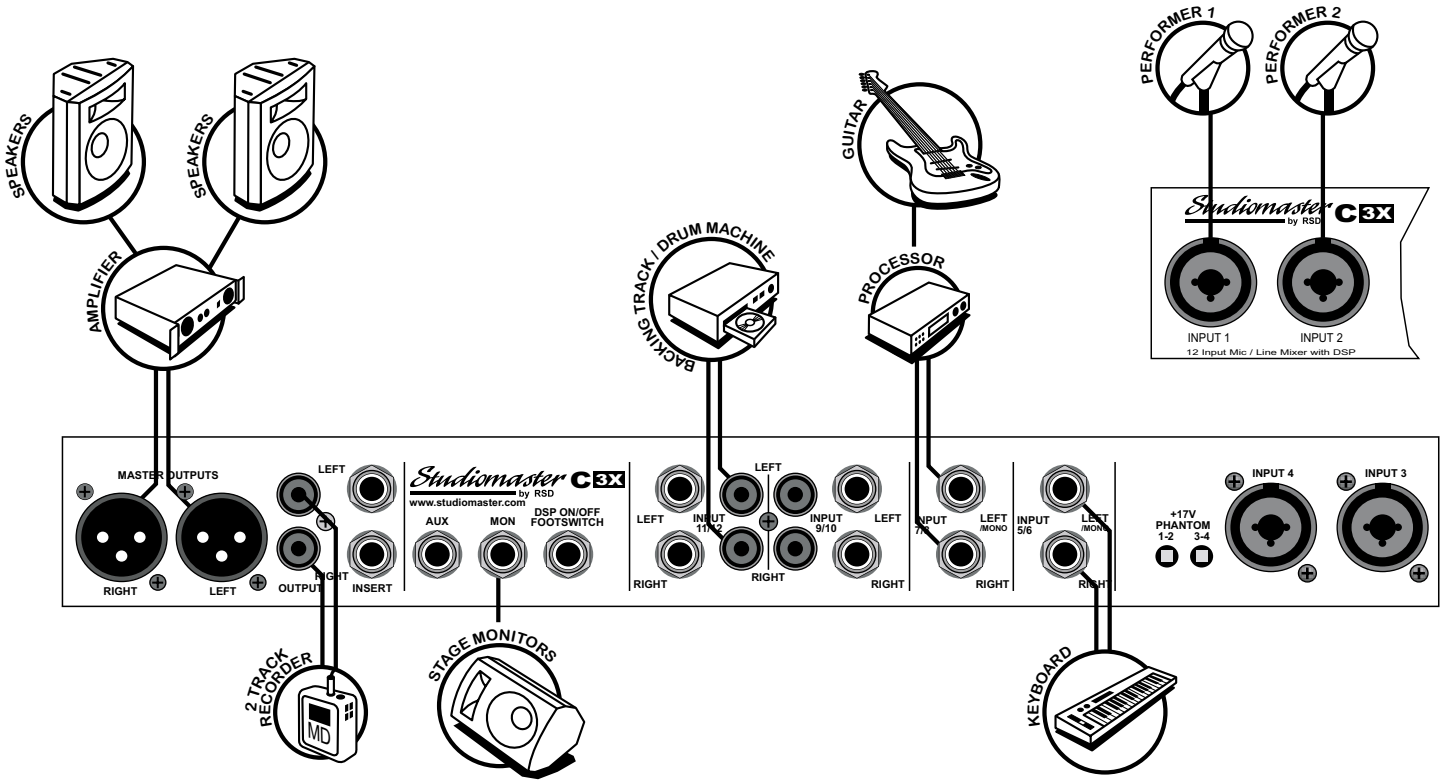
Check that the level control of the channel being used and the MASTER OUTPUT level control are not set at '0' position.

Check the sound source - is it on?

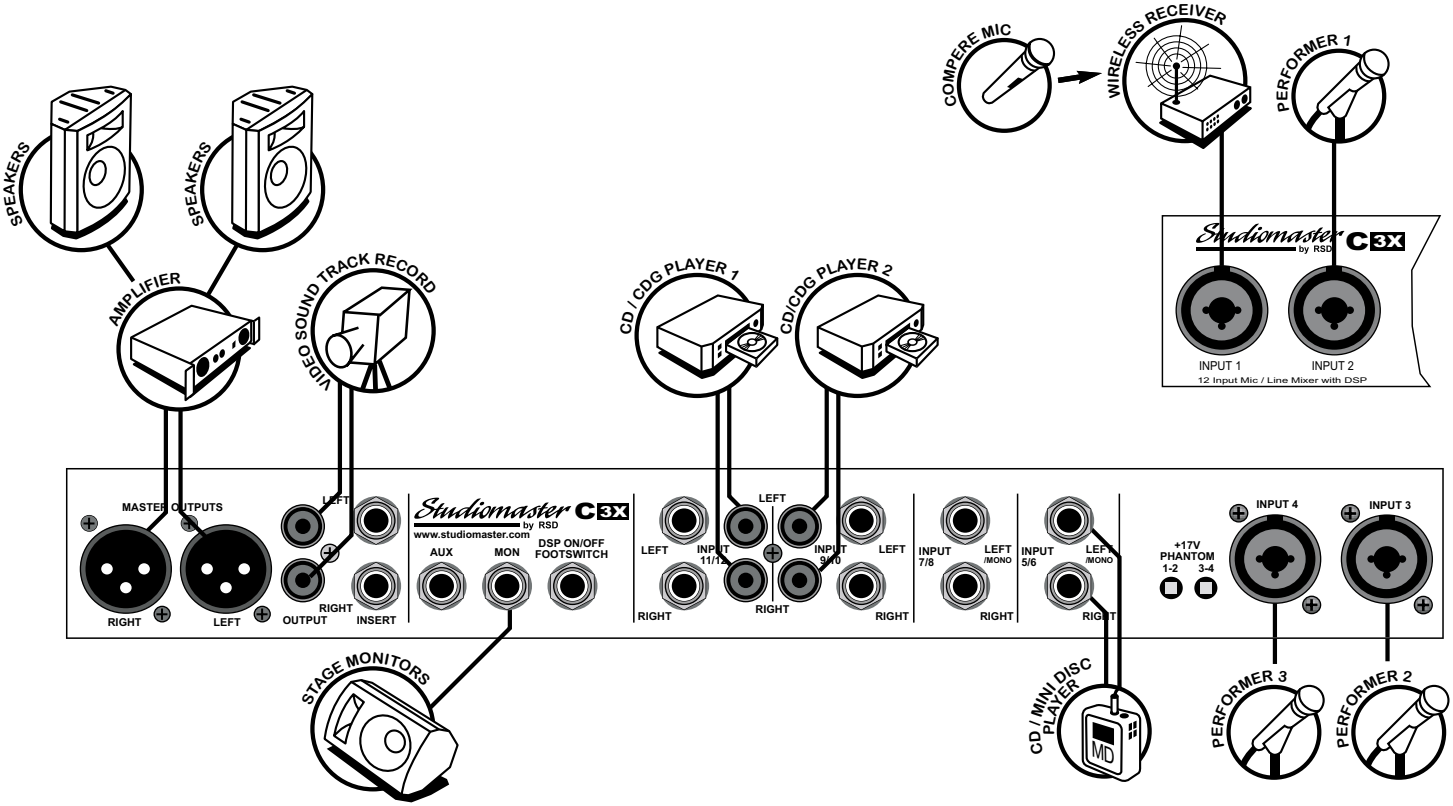
HOME KARAOKE C3X



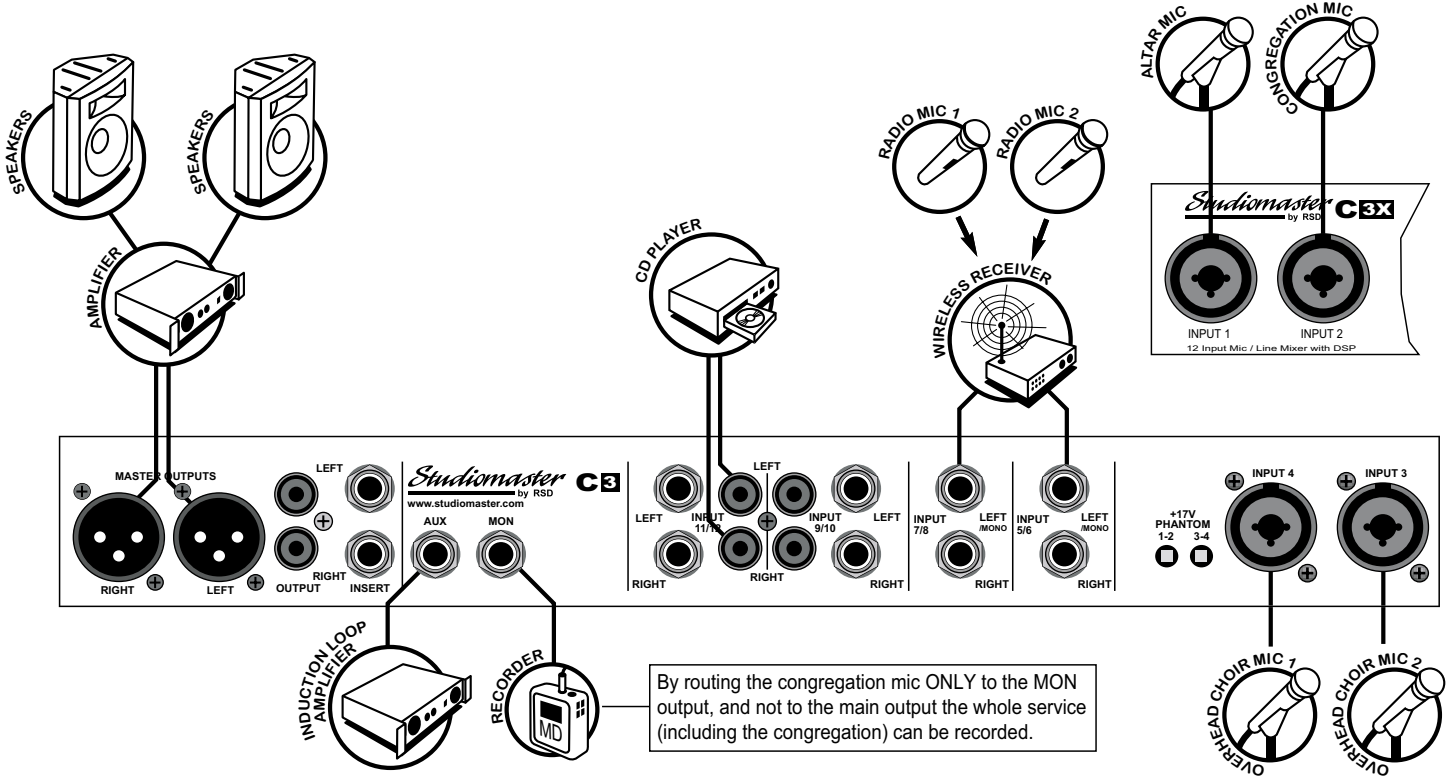
SOLO / DUO PERFORMERS



PRO KARAOKE C3X



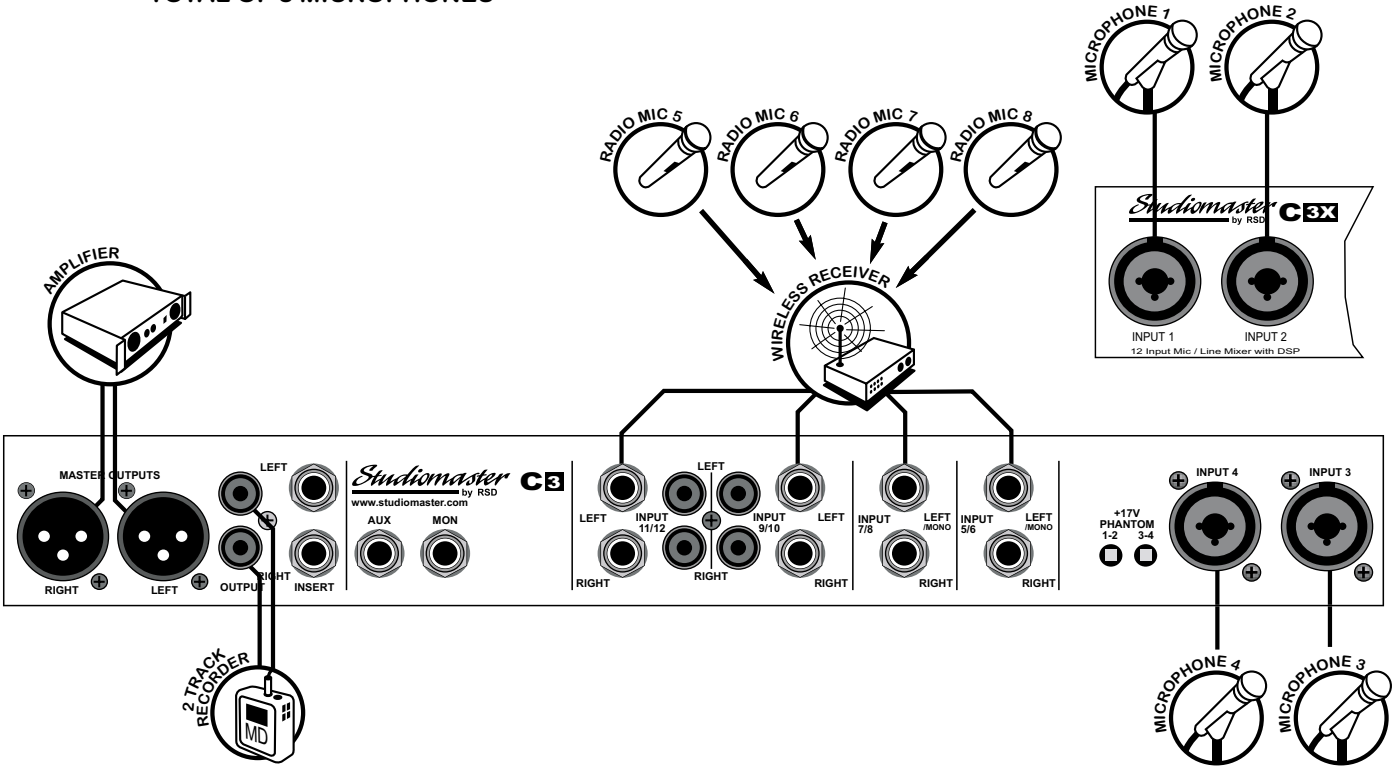
CHURCH SYSTEM C3



By routing the congregation mic ONLY to the MON output, and not to the main output the whole service (including the congregation) can be recorded.

CONFERENCE SYSTEM C3

TOTAL OF 8 MICROPHONES



TECHNICAL SPECIFICATION

FACTS & FIGURES

Maximum Gain (Input to Output)		
Mic Inputs		55dB
Line Inputs		40dB
Stereo Inputs		24dB
Frequency Response (any Input)		22Hz - 40kHz
Distortion (any Input)		0.03%
Equalisation (all +/-15dB)		
Mic Input	LO	60Hz
	MID	2.5kHz
	HI	12kHz
Stereo Input	LO	60Hz
	HI	12kHz
DSP (C3X only)		
Reverb mode		8 Programs - see DSP Effects list
Delay mode		Variable between 10mS to 720mS
Regen		Variable between 10% to 90%

Input Connectors	Mic	Balanced XLR
	Line	Balanced TRS Jack
	Stereo 5/6 & 7/8	Balanced TRS Jack
	Stereo 9/10 & 11/12	Balanced TRS Jack and unbalanced RCA phono
Output Connectors	Master Outputs	Balanced XLR and unbalanced RCA phono
	Aux	Balanced compatible TRS Jack
	Mon	Balanced compatible TRS Jack
	DSP footswitch (C3X only)	TS Jack
Power Requirements	**C3**	
	230V range	+/-10%, ~50/60Hz, 52mA Max
	115V range	+/-10%, ~50/60Hz, 104mA Max
	C3X	
	230V range	+/-10%, ~50/60Hz, 70mA Max
	115V range	+/-10%, ~50/60Hz, 140mA Max
Dimensions	Width	482mm (19") including rack ears
	Height	44mm (1.75") 1U
	Depth	265mm (10.5")
Weight	C3	Net 3.6KG (7.92lbs) Gross 4.6KG (10.12lbs)
	C3X	Net 3.7KG (8.14lbs) Gross 4.7KG (10.34lbs)

WARRANTY

ARE YOU COVERED?

The Manufacturer warrants all Studiomaster products to be free from defects in materials and workmanship for a period of one year from date of purchase. The Manufacturer reserves the right to the final decision on all warranty claims.

Exclusions to Warranty Cover

Damage caused by accident, misuse, improper installation or neglect.
Damage caused by repair, modification or service by persons not authorised by Studiomaster.
Products on which the serial number has been defaced, altered or removed.

Who is Protected

This warranty is enforceable by the original purchaser and any subsequent owner(s) during the warranty period, providing a copy of the original sales receipt is submitted whenever a warranty service is required.

It is recommended that you complete and mail the Warranty Registration Card supplied with your product.

For your reference in the event of a warranty or service repair, please complete the following information and attach a copy or your original sales receipt.

Model : _____

Serial Number : _____

Purchase Date : _____

Purchased From : _____

Note : THIS WARRANTY DOES NOT AFFECT YOUR STATUTORY RIGHTS

SERVICE INFORMATION

HOW TO GET MY PRODUCT REPAIRED

If you have a problem with your Studiomaster product or think it has developed a fault you should first carefully check the Trouble Shooting section in this guide. If this does not solve the problem or if the product is physically damaged, contact your local dealer or distributor for service details.

Should it be recommended you return the product to your nearest Studiomaster Service Centre you must first contact them.

You will be asked for the product type and serial number. You will then be given a Returns Authorisation (RA) number.

Pack the unit in its original carton to protect it from shipping damage.

You must have the Returns Authorisation number clearly marked on the outside of the carton or we may refuse the delivery. Studiomaster cannot be held responsible for damage resulting from the equipment being packed incorrectly.

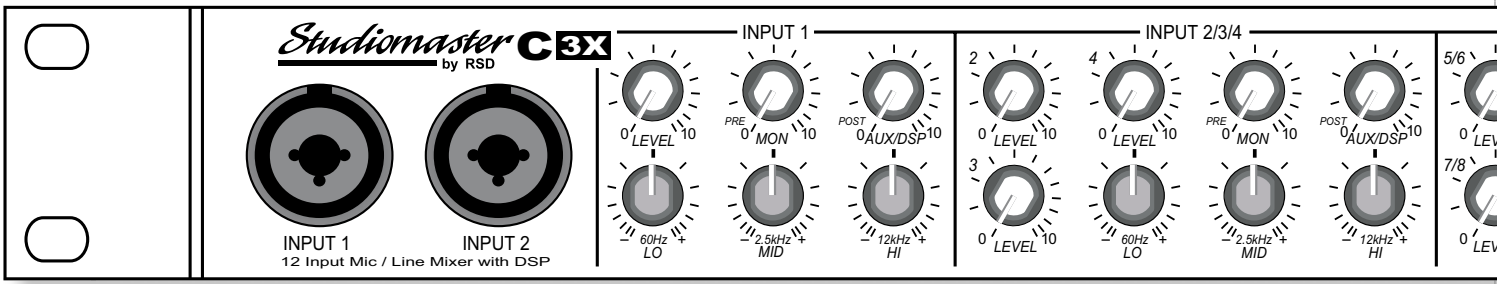
Label the equipment clearly with your name and address and include a clear description of the fault. The more information you supply helps the service engineer, minimising repair cost when out of warranty.

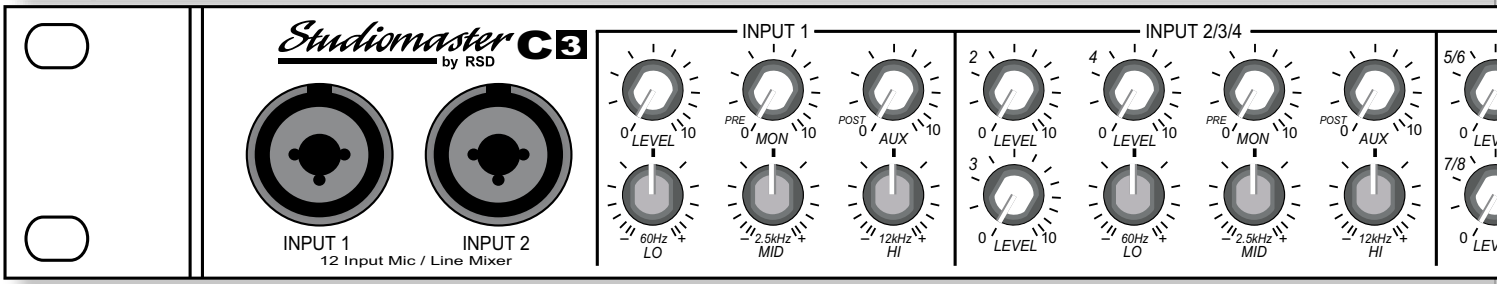
Important : No liability will be accepted by Studiomaster for any transit damage to units not returned in their original packing, for warranty repairs or otherwise.

In Accordance with our progressive product development, Studiomaster / Recording Studio Design reserve the right to change features and specifications without prior notice.

EXPECT THE BEST

EXPECT THE BEST





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